Remarks

Claims 1, 3, 6, 7, 14-16, 18, and 30 are now pending in this application. Claims 1, 3, 6, 7, 14-16, 18, and 30 are rejected. Claims 2, 4-5, 8-13, 17, and 19-29 are canceled without prejudice, waiver, or disclaimer. Claims 1, 3, 6, 7, 14, 18, and 30 have been amended. No new matter has been added.

The rejection of Claims 1, 3, 6, 7, 14-16, 18, and 30 under 35 U.S.C. § 103(a) as being unpatentable over Schanin (U.S. Patent 6,389,822 B1) in combination with Szarka (U.S. Patent 4,223,831) and Glasgow et al. (U.S. Patent 4,318,508) is respectfully traversed.

Schanin describes a vending machine (AP1) that provides for a power-conservation mode (column 5, lines 21-23). While an algorithm used for entering and exiting power-conservation mode is programmable, a default program determines a mode based on occupancy and chamber temperature (column 5, lines 23-27). Occupancy indications are provided to a controller (60) by an external occupancy sensor (OC), and chamber temperatures are indicated by a thermo-sensor (T1) (column 5, lines 26-29, Figure 1). If, at step (S5), it is determined that an area monitored by the occupancy sensor OC is vacant for a 15-minute duration and a temperature indicated by the thermo-sensor (T1) is below an upper threshold, power-conservation mode is entered at step (S6) (column 5, lines 60-65). In power-conservation mode, a coolant system (40) and fans (F1 and F2) are shut down (column 5, lines 65-66).

Szarka describes one or more audio sensors, such as microphones (10a and 10b), which are mounted at various locations in a room whose environment is to be controlled (column 2, lines 43-45). Preferably omni-directional microphones are used (column 2, lines 45-46). Outputs of the audio sensors are mixed together in a preamplifier stage (12) (column 2, lines 46-48). The preamplifier both increases a level of the detected audio signals and filters out extraneous signal components (column 2, lines 48-50). An output of the preamplifier is supplied via a line (14) to an amplifier (16) (column 2, lines 50-51).

Glasgow et al. describe a system including an audio frequency detector (32). The audio frequency detector includes a crystal microphone (34) which is positioned within a room in a manner which maximizes sound reception (column 3, lines 28-31). An electrical output of the microphone is coupled to an input of a 741 operational amplifier (36) which is wired to produce an extremely high voltage gain of approximately one hundred to maximize the sensitivity of the audio frequency detector (column 3, lines 31-36). The system also includes a single transistor ultrasonic oscillator (70) that generates a forty kilohertz output signal which is converted into an ultrasonic sound signal by a piezoelectric transducer (72) (column 4, lines 37-41). This transmitted ultrasonic signal is reflected off various walls and other interior surfaces within the room and is converted into an electrical signal by a receiver transducer (74) (column 4, lines 41-44). Reflected ultrasonic signals picked up by the receiver transducer are amplified by a signal transistor stage (76) and are delivered to the input of an MC1496 balanced product detector (78) (column 4, lines 44-47). A small portion of the output signal from the oscillator is coupled by a conductor (80) to a second input of the product detector (column 4, lines 47-49). Within the product detector the transmitted and received ultrasonic signals are compared (column 4, lines 49-51). Any frequency or phase changes between these two input signals appear at an output conductor (82) of the product detector and are amplified by a 741 operational amplifier (84) (column 4, lines 51-54). The system further includes a control device for the room in which a temperature is controlled by an adjustable thermostat which controls heating and cooling apparatus (column 6, lines 42-44). The control device includes a detection means disposed in the room for producing a control signal when the room is occupied and a control means connected to the detection means for enabling the thermostat in response to the control signal (column 6, lines 44-49).

Claim 1 recites a method for operating a temperature controlled device, the method comprising the steps of "coupling, via a wireless connection, a detector that detects whether a status is one of human present and human absent to a control unit configured to control the temperature controlled device; detecting the status; controlling the temperature controlled device at a first temperature when the detected status is human present; and controlling the temperature controlled device at a second temperature when the detected status is human absent."

None of Schanin, Szarka, or Glasgow et al., considered alone or in combination, describe or suggest a method for operating a temperature controlled device as recited in Claim 1. Specifically, none of Schanin, Szarka, or Glasgow et al., considered alone or in combination, describe or suggest coupling, via a wireless connection, a detector that detects whether a status is one of human present and human absent to a control unit configured to control the temperature controlled device. Rather, Schanin describes providing by an external occupancy sensor occupancy indications to a controller. Szarka describes mounting one or more audio sensors at various locations in a room whose environment is to be controlled and mixing outputs of the audio sensors together in a preamplifier stage. Glasgow et al. describe positioning a crystal microphone within a room in a manner which maximizes sound reception, coupling an electrical output of the microphone to an input of a 741 operational amplifier, converting a forty kilohertz output signal into an ultrasonic sound signal by a piezoelectric transducer, reflecting the transmitted ultrasonic signal off various walls and other interior surfaces within the room, converting the transmitted ultrasonic signal into an electrical signal by a receiver transducer, and amplifying the reflected ultrasonic signals by a signal transistor stage. Glasgow et al. also describe producing, by a detection means disposed in a room, a control signal when the room is occupied, connecting a control means to the detection means for enabling a thermostat in response to the control signal. Accordingly, none of Schanin, Szarka, or Glasgow et al., considered alone or in combination, describe or suggest coupling, via a wireless connection, a detector that detects a status to a control unit configured to control the temperature controlled device. For the reasons set forth above, Claim 1 is submitted to be patentable over Schanin in view of Szarka and Glasgow et al.

Claims 3, 6, 7 and 30 depend on Claim 1. When the recitations of Claims 3, 6, 7 and 30 are considered in combination with the recitations of Claim 1, Applicant submits that dependent Claims 3, 6, 7 and 30 likewise are patentable over Schanin in view of Szarka and Glasgow et al.

Claim 14 recites a method for fabricating a temperature controlled device, the method comprising "providing a human presence detector in an area distant to the temperature control device; coupling, via a wireless connection, the human presence

detector that detects whether a status is one of human present and human absent to a control unit configured to control the temperature controlled device; and coupling the human presence detector to the temperature controlled device such that the temperature controlled device is controlled based on the status such that the temperature controlled device is controlled at a first temperature when the status is human present and the temperature controlled device is controlled at a second temperature when the status is human absent."

None of Schanin, Szarka, or Glasgow et al., considered alone or in combination, describe or suggest a method for fabricating a temperature controlled device as recited in Claim 14. Specifically, none of Schanin, Szarka, or Glasgow et al., considered alone or in combination, describe or suggest coupling, via a wireless connection, the human presence detector that detects whether a status is one of human present and human absent to a control unit configured to control the temperature controlled device. Rather, Schanin describes providing by an external occupancy sensor occupancy indications to a controller. Szarka describes mounting one or more audio sensors at various locations in a room whose environment is to be controlled and mixing outputs of the audio sensors together in a preamplifier stage. Glasgow et al. describe positioning a crystal microphone within a room in a manner which maximizes sound reception, coupling an electrical output of the microphone to an input of a 741 operational amplifier, converting a forty kilohertz output signal into an ultrasonic sound signal by a piezoelectric transducer, reflecting the transmitted ultrasonic signal off various walls and other interior surfaces within the room, converting the transmitted ultrasonic signal into an electrical signal by a receiver transducer, and amplifying the reflected ultrasonic signals by a signal transistor stage. Glasgow et al. also describe producing, by a detection means disposed in a room, a control signal when the room is occupied, connecting a control means to the detection means for enabling a thermostat in response to the control signal. Accordingly, none of Schanin, Szarka, or Glasgow et al., considered alone or in combination, describe or suggest coupling, via a wireless connection, the human presence detector that detects a status to a control unit configured to control the temperature controlled device. For the reasons set forth above, Claim 14 is submitted to be patentable over Schanin in view of Szarka and Glasgow et al.

Claims 15 and 16 depend on Claim 1. When the recitations of Claims 15 and 16 are considered in combination with the recitations of Claim 14, Applicant submits that dependent Claims 15 and 16 likewise are patentable over Schanin in view of Szarka and Glasgow et al.

Claim 18 recites a method for fabricating a control unit for a temperature controlled device, the method comprising the steps of "providing a control unit configured to control the temperature controlled device; coupling, via a wireless connection, a human detector that detects whether a status is one of human present and human absent to the control unit configured to control the temperature controlled device; and coupling the human detector to the control unit such that the control unit controls the temperature controlled device based on the status such that the temperature controlled device is controlled at a first temperature when the status is human present and the temperature controlled device is controlled at a second temperature when the status is human absent."

None of Schanin, Szarka, or Glasgow et al., considered alone or in combination, describe or suggest a method for fabricating a control unit as recited in Claim 18. Specifically, none of Schanin, Szarka, or Glasgow et al., considered alone or in combination, describe or suggest coupling, via a wireless connection, a human detector that detects whether a status is one of human present and human absent to the control unit configured to control the temperature controlled device. Rather, Schanin describes providing by an external occupancy sensor occupancy indications to a controller. Szarka describes mounting one or more audio sensors at various locations in a room whose environment is to be controlled and mixing outputs of the audio sensors together in a preamplifier stage. Glasgow et al. describe positioning a crystal microphone within a room in a manner which maximizes sound reception, coupling an electrical output of the microphone to an input of a 741 operational amplifier, converting a forty kilohertz output signal into an ultrasonic sound signal by a piezoelectric transducer, reflecting the transmitted ultrasonic signal off various walls and other interior surfaces within the room, converting the transmitted ultrasonic signal into an electrical signal by a receiver transducer, and amplifying the reflected ultrasonic signals by a signal transistor stage. Glasgow et al. also describe producing, by a detection means disposed in a room, a control signal when the room is occupied,

connecting a control means to the detection means for enabling a thermostat in response to the control signal. Accordingly, none of Schanin, Szarka, or Glasgow et al., considered alone or in combination, describe or suggest coupling, via a wireless connection, a human detector that detects a status to the control unit configured to control the temperature controlled device. For the reasons set forth above, Claim 18 is submitted to be patentable over Schanin in view of Szarka and Glasgow et al.

For at least the reasons set forth above, Applicant respectfully requests that the Section 103 rejection of Claims 1, 3, 6, 7, 14-16, 18, and 30 be withdrawn.

Moreover, Applicant respectfully submits that the Section 103 rejection of Claims 1, 3, 6, 7, 14-16, 18, and 30 is not a proper rejection. As is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. None of Schanin, Szarka, or Glasgow et al., considered alone or in combination, describe or suggest the claimed combination. Furthermore, in contrast to the assertion within the Office Action, Applicant respectfully submits that it would not be obvious to one skilled in the art to combine Schanin with Szarka or Glasgow et al. because there is no motivation to combine the references suggested in the cited art itself.

As the Federal Circuit has recognized, obviousness is not established merely by combining references having different individual elements of pending claims. Ex parte Levengood, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993). MPEP 2143.01. Rather, there must be some suggestion, outside of Applicant's disclosure, in the prior art to combine such references, and a reasonable expectation of success must be both found in the prior art, and not based on Applicant's disclosure. In re Vaeck, 20 U.S.P.Q.2d 1436 (Fed. Cir. 1991). In the present case, neither a suggestion or motivation to combine the prior art disclosures, nor any reasonable expectation of success has been shown.

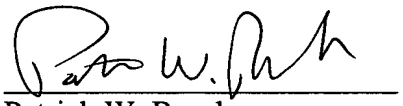
Furthermore, it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the cited art so that the claimed invention is rendered obvious. Specifically, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the art to deprecate

the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. The present Section 103 rejection is based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention. Specifically, Schanin teaches providing by an external occupancy sensor occupancy indications to a controller. Szarka teaches mounting one or more audio sensors at various locations in a room whose environment is to be controlled and mixing outputs of the audio sensors together in a preamplifier stage. Glasgow et al. teach positioning a crystal microphone within a room in a manner which maximizes sound reception, coupling an electrical output of the microphone to an input of a 741 operational amplifier, converting a forty kilohertz output signal into an ultrasonic sound signal by a piezoelectric transducer, reflecting the transmitted ultrasonic signal off various walls and other interior surfaces within the room, converting the transmitted ultrasonic signal into an electrical signal by a receiver transducer, and amplifying the reflected ultrasonic signals by a signal transistor stage. Glasgow et al. also teach producing, by a detection means disposed in a room, a control signal when the room is occupied, connecting a control means to the detection means for enabling a thermostat in response to the control signal. Since there is no teaching nor suggestion in the cited art for the combination, the Section 103 rejection appears to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicant requests that the Section 103 rejection of Claims 1, 3, 6, 7, 14-16, 18, and 30 be withdrawn.

For at least the reasons set forth above, Applicants respectfully request that the rejections of Claims 1, 3, 6, 7, 14-16, 18, and 30 under 35 U.S.C. 103(a) be withdrawn.

In view of the foregoing amendment and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



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